

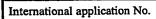


10/51/11 PCT/EP2003/005670

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INTERNATIONAL PRELIMINARY EXAMINATION REPORT

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Anslation P.	ONAL PRELIMINARY EXAMINATION REPORT		
	(PCT Article 36 and Rule 70)		
Applicant's or agent's file reference 2002DE113	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/IPEA/416)		
International application No. PCT/EP2003/005670	International filing date (day/month/year) 30 May 2003 (30.05.2003) Priority date (day/month/year) 05 June 2002 (05.06.2002)		
International Patent Classification (IPC) or n C08K 5/20, C07C 231/02	ational classification and IPC		
Applicant	CLARIANT GMBH		
and is transmitted to the applicant a			
This report is also accomparamended and are the basis for 70.16 and Section 607 of the	sheets, including this cover sheet. nied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been this report and/or sheets containing rectifications made before this Authority (see Rule Administrative Instructions under the PCT).		
IV Lack of unity of i V Reasoned stateme citations and expl VI Certain documen VII Certain defects in	nt of opinion with regard to novelty, inventive step and industrial applicability nvention ent under Article 35(2) with regard to novelty, inventive step or industrial applicability; anations supporting such statement		
	Date of completion of this report		
Date of submission of the demand 12 November 2003 (1)	2.11.2003) 08 September 2004 (08.09.2004)		
	2.11.2003)		



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1. Basis of the report										
1. With regard to the elements of the international application:*										
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	p	ages	1-14	, as originally filed						
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t 1	he into	regard to the language, all the elements marked above were available or furnished to this Authority in the language in which ernational application was filed, unless otherwise indicated under this item. elements were available or furnished to this Authority in the following language the language of a translation furnished for the purposes of international search (under Rule 23.1(b)). the language of publication of the international application (under Rule 48.3(b)). the language of the translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3). regard to any nucleotide and/or amino acid sequence disclosed in the international application, the international ainary examination was carried out on the basis of the sequence listing: contained in the international application in written form. filed together with the international application in computer readable form. furnished subsequently to this Authority in written form.								
1		furnis	thed subsequently to this Authority in computer readable form.							
		intern	statement that the subsequently furnished written sequence listing does not go beyon national application as filed has been furnished.							
		The statement that the information recorded in computer readable form is identical to the written sequence listing been furnished.								
4.		The a	the description, pages the claims, Nos the drawings, sheets/fig							
5.		This r	report has been established as if (some of) the amendments had not been made, since they had the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).**	ave been considered to go						
*	in th	acemen is repo 70.17).	nt sheets which have been furnished to the receiving Office in response to an invitation under ort as "originally filed" and are not annexed to this report since they do not contain	r Article 14 are referred to amendments (Rule 70.16						
**	Any r	replace	ment sheet containing such amendments must be referred to under item $\it I$ and annexed to this	report.						

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Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
 citations and explanations supporting such statement

1.	Statement			
	Novelty (N)	Claims		YES
	to any (any	Claims	1-20	NO
	Inventive step (IS)	Claims		YES
inventive step (10)	Claims	1-20	NO	
	Industrial applicability (IA)	Claims	1-20	YES
	industrial approximity (2-1)	Claims		NO

2. Citations and explanations

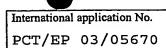
Novelty and Inventive Step (PCT Article 33(2) and (3))

Document D1 (DE-A-2730175) relates to high-melting diamide waxes for use *inter alia* in asphalts produced by reacting diamines with a mixture of mono- and dicarboxylic acids (pages 3, 4). Examples 1 to 5 describe the reaction of ethylene diamine or hexamethylene diamine with mixtures of fatty acids.

Document D2 (DE-A-19929962) claims the use of emulsifiers containing a) fatty acid amidoamines and b) cation polymers in order to produce aqueous bitumen emulsions (claim 1). Fatty acid amidoamines are synthesized preferably by condensing fatty acids with polyvalent amines. Example H1 describes the reaction of tallow fatty acid with N,N-dimethyl-1,3-propanediamine (DAPA). The reaction product has an acid number of < 5 mg KOH/g. The amidoamine is then used to produce an aqueous bitumen emulsion (example 2).

Document D3 (WO-A-0068329) describes an aqueous asphalt emulsion containing an emulsifier composed of the reaction product of a fatty acid and an ethylene polyamine (claims 1, 5, 7, 9, 28, 32-34). The fatty acid is preferably a

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saturated or unsaturated mixture of fatty acids with at least 75% C_{14} - C_{22} or C_{14} - C_{16} fatty acids (claim 10). Example 5-1 (table 5) describes an asphalt emulsion containing an amidoamine of tallow fatty acid and ethylene diamine.

Document D4 (US-A-2901370) relates to an additive for bitumen that is obtained by reacting a tall oil fatty acid with an amine mixture containing ethylene diamine (column 2, line 60 to column 3, line 16; claims 1 and 2).

Document D5 (DE-A-934767) discloses a method for producing wax-like fatty acid diamides, a long-chain fatty acid being reacted with cycloaliphatic diamines to form diamines. Examples 1-3 describe the reaction of mixtures of long-chain fatty acids, diamines and dicarboxylic acids to form reaction products having acid numbers of between 2 and 3. The ratio of fatty acid to diamine is 2:1 in example 2. A cycloaliphatic diamine is uses in combination with an aliphatic diamine in example 3.

Example 3 in document D6 (DE-A-932965) describes reacting a trans-fatty acid with a cycloaliphatic diamine until the acid number has fallen to 0.

Document D7 (GB-A-677935) claims a bitumen composition containing a carboxylic acid polyamine reaction product, wherein tall oil (a mixture of fatty acids and oxy-acids) is preferred as the acid and ethylene diamine is preferred as the polyamine (examples III and IV; claims 1, 6, 10, and 13).

In the present application, the claimed reaction product is defined by parameters, namely by the acid and alkali numbers.



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The documents mentioned above do not explicitly disclose these fat indices in combination. The acid number of the reaction product is discussed only in D2, D5 and D6.

However, since in this case the starting products and the production methods are identical to those according to the application, it can be assumed that the known and the claimed results are identical, i.e. these parameters are inherent in the products according to the prior art.

As a result, documents D1 to D7 are considered prejudicial to the novelty of the subject matter of claims 1-20.

Therefore, neither the novelty nor the inventive step of the present application within the meaning of PCT Article 33(2) and (3) can be acknowledged.